



**Linda S. Adams**

*Secretary for*

*Environmental Protection*

# Air Resources Board

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**Mary D. Nichols, Chairman**

1001 I Street • P.O. Box 2815  
Sacramento, California 95812 • [www.arb.ca.gov](http://www.arb.ca.gov)



**Arnold Schwarzenegger**

*Governor*

May 1, 2009

Mr. Glen Prisciak  
Technical Support Engineer  
DCL International Inc.  
P.O. Box 90  
Concord, Ontario, Canada L4K 1B2

Dear Mr. Prisciak:

The Air Resources Board (ARB) has reviewed DCL International Inc.'s request for an extension of the verification for the Mine-X Sootfilter<sup>®</sup> diesel particulate filter (DPF) system to pumps and compressors. Based on the evaluation of the engine exhaust gas temperature and backpressure data submitted, the ARB hereby extends the verification for the Mine-X Sootfilter<sup>®</sup> DPF system to pumps and compressors.

In August, 2008, the ARB verified that the Mine-X Sootfilter<sup>®</sup> DPF system reduces emissions of diesel particulate matter (PM) by 85 percent or greater and meets the January 2009 NO<sub>2</sub> limit (Level 3 Plus) for stationary prime and emergency standby (E/S) generators powered by certified Tier 1, Tier 2, or Tier 3 off-road engines meeting 0.15 grams per brake horsepower hour (g/bhp-hr) diesel PM or less based on certification or in-use emissions testing on an appropriate emissions test cycle.

In November, 2009, DCL International Inc. submitted engine exhaust gas temperature and backpressure data collected from a compressor operating with a DCL Mine-X Sootfilter<sup>®</sup> DPF system. The data submitted represents more than 1,300 hours of the 1,700 hours the DCL Mine-X Sootfilter<sup>®</sup> DPF system has been in operation on the compressor. The engine exhaust gas temperature and backpressure data provided demonstrate that the DCL Mine-X Sootfilter<sup>®</sup> DPF system operates effectively with pumps or compressors, making the system eligible for an extension of the existing verification to those applications.

Based on the engine exhaust gas temperature and backpressure data provided, the verification is extended to pumps and compressors powered by certified off-road diesel engines meeting to 0.15 g/bhp-hr diesel PM or less based on certification or in-use emissions testing.

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Website: <http://www.arb.ca.gov>.*

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California Environmental Protection Agency

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The verification is valid provided the following operating criteria are met:

Parameter	Value
Application	Stationary Prime and Emergency Standby Power Generation, Pumps and Compressors
Engine Type	Diesel, with or without turbocharger, without Exhaust-Gas Recirculation (EGR), mechanically or electronically controlled, Tier 1, Tier 2, or Tier 3 off-road engines certified to a particulate matter (PM) emission limit of less than or equal to 0.15 g/bhp-hr.
Minimum Exhaust Temperature for Filter Regeneration	The engine must operate at the load level required to achieve 350 degrees Celsius (°C) for a minimum of 30 percent of the engine's operating time. Operation at lower temperatures is allowed, but only for a limited duration.
Maximum Consecutive Minutes Operating Below Passive Regeneration Temperature	240 minutes
Number of Consecutive Cold Starts and 15 Minute Idle Sessions before Regeneration Required	16
Number of Hours of Operation Before Cleaning of Filter Required	1,000 when using Ultra Low Sulfur Diesel (<15 ppm Sulfur).
Fuel	California diesel fuel with less than or equal to 15 ppm sulfur or a biodiesel blend provided that the biodiesel portion of the blend complies with ASTM International D6751 (15 ppm sulfur), the diesel portion of the blend complies with Title 13 (CCR), sections 2281 and 2282 and the blend contains no more than 20 percent biodiesel by volume.
PM Verification Level	Level 3 Plus Verification: <ul style="list-style-type: none"><li>• PM - at least 85% reduction</li><li>• NO<sub>2</sub> - meets January 2009 limit</li></ul>

Since there may be significant variations from application to application, DCL International Inc. must review actual operating conditions (duty cycle, baseline emissions, exhaust temperature profiles, and engine backpressure) prior to retrofitting an engine with an MINE-X SOOTFILTER® DPF system to ensure compatibility.

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Furthermore, the engine on which the MINE-X SOOTFILTER<sup>®</sup> DPF system is installed should be well maintained and not consume lubricating oil at a rate greater than that specified by the engine manufacturer. DCL International Inc. must install the DCL Exhaust Monitor/Logger, or equivalent, backpressure monitor on all engines retrofitted with an MINE-X SOOTFILTER<sup>®</sup> DPF system.

ARB hereby assigns the MINE-X SOOTFILTER<sup>®</sup> DPF system the designated family name of:

**CA/DCL/2008/PM3+/N00/ST/DPF01**

This identification number should be used in reference to this verification as part of the system labeling requirement.

Additionally, as stated in the Diesel Emission Control Strategy Verification Procedure, DCL International Inc. is responsible for honoring their warranty (California Code of Regulations, Title 13, section 2707) and conducting in-use compliance testing (California Code of Regulations, Title 13, section 2709).

Should you have any questions or comments, please contact Mr. Kirk Rosenkranz, Air Pollution Specialist at (916) 327-7843 or Mr. John Lee, Air Resources Engineer at (916) 327-5975.

Sincerely,

/s/

Robert D. Fletcher, Chief  
Stationary Source Division

Enclosure

cc: John Lee  
Air Resources Engineer  
Control Strategies Section

Kirk Rosenkranz  
Air Pollution Specialist  
Control Strategies Section